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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	CARDINAL et al.	Examiner:	Kidest Bahta
Application No.:	10/732,911	Art Unit:	2125
Filed:	December 10, 2003	Docket No.:	ETWSP002
Title:	IRRIGATION SYSTEM		

CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in a prepaid envelope addressed to: Commissioner for Patents, Mail Stop Appeal Brief-Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on:

April 27, 2007.

Veronica Pula

APPEAL BRIEF TRANSMITTAL

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Appellant's Brief Pursuant To 37 CFR §41.37 is enclosed.

The fee for filing the enclosed Appellant's Brief is $500.00 (37 CFR §41.20(b)(2)).

☒ Applicant(s) hereby petition for following extension of time in which to respond to the outstanding Office Action.

	SMALL ENTITY			LARGE ENTITY	
	Rate	Add'l Fee		Rate	Add'l Fee
☐ Extension for Response within FIRST month	x $60 = $		OR	x $120 = $	
☒ Extension for Response within SECOND month	x $225 = $		OR	x $450 = $	450.00
☐ Extension for Response within THIRD month	x $510 = $		OR	x $1020 = $	
☐ Extension for Response within FOURTH month	x $795 = $		OR	x $1590 = $	
☐ Extension for Response within FIFTH month	x $1080 = $		OR	x $2160 = $	

04/26/2007 AWONDAF1 00000011 10732911
02 FC:1252 450.00 OP

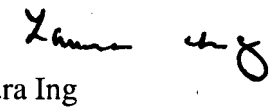
Check No. 2939 for $950.00 is enclosed herewith.

[$500.00 Appeal Brief: $450.00 Extension of Time Fee.]

☒ Applicant(s) believe that no (additional) Extension of Time is required; however, if it is determined that such an extension is required, Applicant(s) hereby petition(s) that such an extension be granted and authorize the Commissioner to charge the required fees for an Extension of Time under 37 CFR 1.136 to Deposit Account No. 50-0685. (ETWSP002).

☐ OTHER:

Respectfully submitted,
VAN PELT, YI & JAMES LLP



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Veronica Pula

APPELLANT'S BRIEF PURSUANT TO 37 C.F.R. §41.37

MAIL STOP APPEAL BRIEF - PATENTS
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Appellant, Applicant in the above-captioned patent application, appeals the final rejection of Claims 1 – 67 set forth in the final Office Action mailed on September 11, 2006. A check for the filing fee is enclosed. Please charge any additional fees that may be required now or in the future to Deposit Account No. 50-0685.

I. REAL PARTY IN INTEREST

The real party of interest in the present application is ET Water Systems, LLC.

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II. RELATED APPEALS AND INTERFERENCES

PURSUANT TO 37 C.F.R. §41.37(c)(1)(ii), Appellant hereby notifies the Board of Patent Appeals that Appellant, the Appellant's Legal Representative, and the Assignee do not

know of any appeals or interferences that will directly affect or be directly affected by or have any bearing on the Board's decision in the pending appeal.

III. STATUS OF CLAIMS

Claims 1 – 67 are currently pending in the application, and are attached hereto as an appendix. All pending claims were finally rejected by the Examiner and are the subject this appeal.

IV. STATUS OF AMENDMENTS

No amendment has been filed since the Final Office Action. All previously submitted amendments are believed to have been entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER

The claimed subject matter of Claim 1 relates to a method for controlling an automatic irrigation system where information associated with multiple users is processed. Figures 3 and 4 illustrate examples of operating a central control unit of an irrigation system and generating an irrigation schedule, respectively. First and second landscape information associated with a first and second irrigation site, respectively, are received. The first irrigation site is associated with a first user and the second irrigation site is associated with a second user. First environmental information associated with the first irrigation site is received and second environmental information associated with the second irrigation site is received. An example of receiving can be found, without limitation, at page 5, line 11 – page 6, line 7. A first individual station irrigation schedule is derived for the first irrigation site based on the first landscape information and the first environmental information. A second individual station irrigation schedule is derived for the second irrigation site based on the second landscape information and the second environmental information. An example of deriving can be found, without limitation, at page 15, line 14 – page 16, line 12. The first and second individual station irrigation schedules are sent respectively to a first and second irrigation control unit. The first irrigation control unit is

associated with the first irrigation site and the second irrigation control unit is associated with the second irrigation site. An example of sending can be found, without limitation, at page 26, line 20 – page 27, line 17.

The claimed subject matter of Claim 59 relates to an automatic irrigation system where information associated with multiple users is processed. Figures 3 and 4 illustrate examples of operating a central control unit of an irrigation system and generating an irrigation schedule, respectively. The irrigation system includes a processor and memory where the memory is configured to provide the processor with instructions. First and second landscape information associated with a first and second irrigation site, respectively, are received. The first irrigation site is associated with a first user and the second irrigation site is associated with a second user. First environmental information associated with the first irrigation site is received and second environmental information associated with the second irrigation site is received. An example of receiving can be found, without limitation, at page 5, line 11 – page 6, line 7. A first individual station irrigation schedule is derived for the first irrigation site based on the first landscape information and the first environmental information. A second individual station irrigation schedule is derived for the second irrigation site based on the second landscape information and the second environmental information. An example of deriving can be found, without limitation, at page 15, line 14 – page 16, line 12. The first and second individual station irrigation schedules are sent respectively to a first and second irrigation control unit. The first irrigation control unit is associated with the first irrigation site and the second irrigation control unit is associated with the second irrigation site. An example of sending can be found, without limitation, at page 26, line 20 – page 27, line 17.

The claimed subject matter of Claim 60 relates to a computer program product for controlling an automatic irrigation system where information associated with multiple users is processed. Figures 3 and 4 illustrate examples of operating a central control unit of an irrigation system and generating an irrigation schedule, respectively. The computer program product is embodied in a computer readable medium and comprises computer instructions. First and second landscape information associated with a first and second irrigation site, respectively, are received. The first irrigation site is associated with a first user and the second irrigation site is associated with a second user. First environmental information associated with the first

irrigation site is received and second environmental information associated with the second irrigation site is received. An example of receiving can be found, without limitation, at page 5, line 11 – page 6, line 7. A first individual station irrigation schedule is derived for the first irrigation site based on the first landscape information and the first environmental information. A second individual station irrigation schedule is derived for the second irrigation site based on the second landscape information and the second environmental information. An example of deriving can be found, without limitation, at page 15, line 14 – page 16, line 12. The first and second individual station irrigation schedules are sent respectively to a first and second irrigation control unit. The first irrigation control unit is associated with the first irrigation site and the second irrigation control unit is associated with the second irrigation site. An example of sending can be found, without limitation, at page 26, line 20 – page 27, line 17.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 – 67 stand rejected under 35 U.S.C. 35 U.S.C. 102(b).

VII. ARGUMENT

CLAIMS 1 - 67 REJECTED UNDER 35 U.S.C. 102(b)

For the reasons set forth below, Appellants respectfully submit that the Examiner has erred in maintaining the 35 U.S.C 102(b) rejection of Claims 1 – 67.

Claims 1 – 67 have been rejected by the Examiner under 35 U.S.C. 102(b) as being anticipated by Oliver. To anticipate a claim, the reference must teach every element of the claim. See MPEP 2131. Appellants respectfully submit that Oliver does not teach the claim element of "deriving a first individual station irrigation schedule for the first irrigation site based on the first landscape information and the first environmental information and a second individual station irrigation schedule for the second irrigation site based on the second landscape information and the second environmental information" where "[the] first irrigation site [is] associated with a first user" and "[the] second irrigation site [is] associated with a second user", as recited in independent claims 1, 59, and 60. For example, in some embodiments, the first and

second users are different property owners and irrigation schedules are derived for properties of the respective property owners. In some embodiments, the first and second users are different landscape contractors and irrigation schedules are derived for properties overseen by the respective landscape contractors (see, e.g., page 6, lines 16 – 19).

In some embodiments, the determination of a first and second irrigation schedule for irrigation sites associated with a first and second user, respectively, as recited in claims 1, 59, and 60 is performed using a client-server architecture where a server services multiple clients. See, for example, page 6, line 20 – page 7, line 2. Two different clients can use or otherwise access the same server, without necessarily being aware of the other client or having access to the other client's information. In various embodiments, irrigation related information (e.g., an irrigation schedule, plant information, field information, etc.) and/or irrigation related operations (e.g., report generation, initiation of a manual watering, etc.) may be accessible or controllable using a server by multiple users. In some embodiments, to distinguish between users and/or prevent unauthorized access, new users are required to set up a username and/or password. See, for example, page 25, lines 10 – 11.

In some embodiments, the determination of a first and second irrigation schedule for irrigation sites associated with a first and second user, respectively, as recited in claims 1, 59, and 60 is performed using a web server where, for example, irrigation information and/or operations are accessed by users via a web interface. For example, a user may provide plant information using Internet Explorer or some other internet browser application. In some embodiments, a business partner (e.g., a water agency) has web access and is provided with a user ID and password. For example, a water agency can access, manipulate, and/or view irrigation information via the website. See, for example, page 31, lines 12 – 17.

In various embodiments having multiple users share the same system, as taught and claimed by appellants, costs are shared across multiple users, water usage reports are able to be generated by aggregating or comparing data for multiple users, and/or water usage curves are shaped by adjusting irrigation schedules of multiple users. See, for example, page 31, lines 8 – 17, page 33, line 22 – page 34, line 2, and page 20, lines 13 – 22.

Oliver discloses determining irrigation schedules for a variety of sites or zones but does not disclose that the sites or zones are associated with different users. Using a system to compute an irrigation schedule for a single user, as taught by Oliver, is not "deriving a first individual station irrigation schedule for the first irrigation site based on the first landscape information and the first environmental information and a second individual station irrigation schedule for the second irrigation site based on the second landscape information and the second environmental information" where "[the] first irrigation site [is] associated with a first user" and "[the] second irrigation site [is] associated with a second user" as recited in claims 1, 59, and 60. In Figures 7 and 11, Oliver shows two flowcharts for determining new irrigation schedules. In both figures, Oliver does not describe determining which user a system is interacting with. For example, there is no check of a user/login name and/or retrieval of user-specific information for a particular user. The system taught by Oliver is therefore believed to be directed towards supporting a single user and independent claims 1, 59, and 60 are believed to be allowable. Claims 2 – 58 and 61 – 67 depend from claim 1 and are also believed to be allowable for the same reasons described above.

VIII. CLAIMS APPENDIX

1. A method of controlling an irrigation system, comprising:

receiving a first landscape information associated with a first irrigation site associated with a first user and a second landscape information associated with a second irrigation site associated with a second user;

receiving a first environmental information associated with the first irrigation site and a second environmental information associated with the second irrigation site;

deriving a first individual station irrigation schedule for the first irrigation site based on the first landscape information and the first environmental information and a second individual station irrigation schedule for the second irrigation site based on the second landscape information and the second environmental information; and

sending the first individual station irrigation schedule to a first irrigation control unit associated with the first irrigation site and the second individual station irrigation schedule to a second irrigation control unit associated with the second irrigation site.

2. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is sent to the first irrigation control unit via a network.

3. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is sent to the first irrigation control unit via the Internet.

4. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is sent to the first irrigation control unit via a telephone line.

5. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information and the first environmental information are provided to a central control system.

6. A method of controlling an irrigation system as recited in Claim 1, wherein providing the first landscape information includes configuring a landscape parameter via a web interface.

7. A method of controlling an irrigation system as recited in Claim 1, further comprising updating the first environmental information.

8. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes soil type.

9. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes slope information.

10. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes plant type.

11. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes age of plant.

12. A method of controlling an irrigation system as recited in Claim 1, wherein the first environmental information includes evapotranspiration (ET) information.

13. A method of controlling an irrigation system as recited in Claim 1, wherein the first environmental information includes weather information.

14. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule includes a restriction on the amount of water used.

15. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule includes a valve command.

16. A method of controlling an irrigation system as recited in Claim 1, further comprising updating the first environmental information.

17. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the first individual station irrigation schedule and the second individual station irrigation schedule includes balancing usage with other sites.

18. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the first individual station irrigation schedule and the second individual station irrigation schedule includes providing biasing information.

19. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the first individual station irrigation schedule and the second individual station irrigation schedule includes accounting for needs of the most demanding plant.

20. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the first individual station irrigation schedule and the second individual station irrigation schedule includes selecting an algorithm used for deriving an irrigation schedule from a plurality of algorithms.

21. A method of controlling an irrigation system as recited in Claim 1, wherein the first irrigation control unit is connected to Internet via a local point of presence (POP).

22. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is sent to the first irrigation control unit via Internet.

23. A method of controlling an irrigation system as recited in Claim 1, wherein sending the first individual station irrigation schedule to the first irrigation control unit is initiated by the first irrigation control unit.

24. A method of controlling an irrigation system as recited in Claim 1, wherein sending the first individual station irrigation schedule to the first irrigation control unit is initiated by the first irrigation control unit and the first irrigation control unit uses a pull model to request the first individual station irrigation schedule.

25. A method of controlling an irrigation system as recited in Claim 1, wherein the first irrigation control unit communicates with a watering station via a shared phone line.

26. A method of controlling an irrigation system as recited in Claim 1, in the event that sending the first individual station irrigation schedule fails, further comprising providing an alert.

27. A method of controlling an irrigation system as recited in Claim 1, in the event that sending the first individual station irrigation schedule fails, further comprising performing irrigation using a stored irrigation schedule on the first irrigation control unit.

28. A method of controlling an irrigation system as recited in Claim 1, further comprising providing analysis of water usage to a water agency.

29. A method of controlling an irrigation system as recited in Claim 1, further comprising uploading meter data from the first irrigation control unit to a central control.

30. A method of controlling an irrigation system as recited in Claim 1, further comprising viewing the first landscape information and/or the first individual station irrigation schedule via a web interface.

31. A method of controlling an irrigation system as recited in Claim 1, further comprising modifying the first landscape information and/or the first individual station irrigation schedule via a web interface.

32. A method of controlling an irrigation system as recited in Claim 1, further comprising viewing landscape information and/or irrigation schedules for a plurality of geographically dispersed sites via a web interface.

33. A method of controlling an irrigation system as recited in Claim 1, further comprising modifying landscape information and/or irrigation schedules for a plurality of geographically dispersed sites via a web interface.

34. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes irrigation method.

35. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes precipitation rate.

36. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes distribution uniformity.

37. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes root depth of plant.

38. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes dripline diameter of plant.

39. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes number of emitters per plant.

40. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes flow rate of emitter.

41. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes sun exposure information.

42. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes plant coefficient by month.

43. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is optimized for one or more stations.

44. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule includes multiple stations operating simultaneously.

45. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is derived using station flow rates and maximum allowable system flow.

46. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is automatically adjusted for rainfall.

47. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the first individual station irrigation schedule and the second individual station irrigation schedule includes minimizing runoff.

48. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule includes hourly restrictions.

49. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule includes non-watering days.

50. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the first individual station irrigation schedule includes accounting for the priority of stations.

51. A method of controlling an irrigation system as recited in Claim 1, wherein the first landscape information includes seasonality of plants.

52. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is derived using station flow rates provided by a flow sensor.

53. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is optimized to fit within a user-defined water window.

54. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule includes individual station schedules derived using a plurality of algorithms.

55. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the first individual station irrigation schedule includes selecting an algorithm based on an irrigation method.

56. A method of controlling an irrigation system as recited in Claim 1, wherein deriving the first individual station irrigation schedule includes selecting an algorithm based on geographic location.

57. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule is derived using station flow rates provided by a water meter.

58. A method of controlling an irrigation system as recited in Claim 1, further comprises uploading meter data from a water meter to the first irrigation control unit.

59. An irrigation system comprising:

a processor; and

a memory coupled with the processor, wherein the memory is configured to provide the processor with instructions which when executed cause the processor to:

receive a first landscape information associated with a first irrigation site associated with a first user and a second landscape information associated with a second irrigation site associated with a second user;

receive a first environmental information associated with the first irrigation site and a second environmental information associated with the second irrigation site;

derive a first individual station irrigation schedule for the first irrigation site based on the first landscape information and the first environmental information and a second individual station irrigation schedule for the second irrigation site based on the second landscape information and the second environmental information; and

send the first individual station irrigation schedule to a first irrigation control unit associated with the first irrigation site and the second individual station irrigation schedule to a second irrigation control unit associated with the second irrigation site.

60. A computer program product for controlling an irrigation system, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

receiving a first landscape information associated with a first irrigation site associated with a first user and a second landscape information associated with a second irrigation site associated with a second user;

receiving a first environmental information associated with the first irrigation site and a second environmental information associated with the second irrigation site;

deriving a first individual station irrigation schedule for the first irrigation site based on the first landscape information and the first environmental information and a second individual station irrigation schedule for the second irrigation site based on the second landscape information and the second environmental information; and

sending the first individual station irrigation schedule to a first irrigation control unit associated with the first irrigation site and the second individual station irrigation schedule to a second irrigation control unit associated with the second irrigation site

61. A method of controlling an irrigation system as recited in Claim 1, further including displaying an effect of modifying the first individual station irrigation schedule, including displaying a change to a water bill.

62. A method of controlling an irrigation system as recited in Claim 1, wherein there are a plurality of individual station irrigation schedules accessible via a web interface, the first user has a first access privilege to the plurality of individual irrigation schedules via the web interface, and the second user has a second access privilege to the plurality of individual irrigation schedules via the web interface.

63. A method of controlling an irrigation system as recited in Claim 1, wherein there are a plurality of individual station irrigation schedules accessible via a web interface, the first user has a first access privilege to the plurality of individual irrigation schedules via the web interface, and the second user has a second access privilege to the plurality of individual irrigation schedules via the web interface.

64. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule that is sent to the first irrigation control unit specifies, without reference to a default or reference schedule, a watering schedule to be implemented at the first irrigation site.

65. A method of controlling an irrigation system as recited in Claim 1, wherein the first individual station irrigation schedule specifies one or more of a start flow time and a stop flow time of a first individual station valve associated with the first irrigation control unit.

66. A method of controlling an irrigation system as recited in Claim 1, wherein: a third user has access to at least one of (1) the first landscape information, (2) the first environmental information, or (3) the first individual station irrigation schedule and access to at least one of (1) the second landscape information, (2) the second environmental information, or (3) the second individual station irrigation schedule.

67. A method of controlling an irrigation system as recited in Claim 66, wherein the third user has access to trend data associated with the first and second irrigation sites.

IX. EVIDENCE APPENDIX

Not Applicable.

X. RELATED PROCEEDINGS APPENDIX

Not Applicable.

Respectfully submitted,
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